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10/085,581

02/26/2002

Yu-Cheun Jou

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11/09/2006

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EXAMINER

PATEL, NIRAV B

ART UNIT

PAPER NUMBER

2135

DATE MAILED: 11/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/085,581 | JOU ET AL. | |
| | Examiner | Art Unit | |
| | Nirav Patel | 2135 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2006 (RCE).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-6, 8-10, 20, 22-25 and 27-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, 8-10, 20, 22-25, 27-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's submission for RCE (Request for Continued Examination) filed on Aug 17, 2006 has been entered.
2. Claims 1, 3-6, 8-10, 20, 22-25, 27-29 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 6, 8, 20, 22, 25, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent (US Patent No. 5,060,266) and in view of Dahlman et al (US Patent No. 6,912,228).

As per claim 1, Dent discloses:

determining a scrambling sequence in accordance with time (i.e. time corresponding to a slot) [Fig. 4, 6, 7, time clock or block counter controls the operation of the time-of-day or block-count driven ciphering/deciphering device, including a synchronization mechanism, col. 12 lines 47-50, col. 11 lines 10-28]; determining the time in accordance with a subinterval of a system time interval (i.e. time slot) in which the information bits are to be transmitted [Fig. 6, 7, col. 59-62, col. 13 lines 2-4]; and determining the

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scrambling sequence in accordance with the time (corresponding to a slot) [Fig. 4-7, col. 12 lines 60-68, col. 13 lines 1-4].

Dahlman teaches:

metric of system time [Fig. 10 → one time period includes ten time slots, col. 8 lines 24-28].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Dahlman with Dent, since one would have been motivated to provide the accuracy of channel quality [Dahlman, col. 4 line 67].

As per claim 3, the rejection of claim 1 is incorporated and Dent discloses:

determining the metric (i.e. time corresponding to a slot) in accordance with a first subinterval of the system time interval [Fig. 7 → S1 or S2 or S3, time clock or block counter controls the operation of the time-of-day or block-count driven ciphering/deciphering device, including a synchronization mechanism, col. 12 lines 47-50, col. 13 lines 24-31].

As per claim 6, Dent discloses:

determining an unscrambling sequence in accordance with time (i.e. time corresponding to a slot) [Fig. 4, 6, 7, time clock or block counter controls the operation of the time-of-day or block-count driven ciphering/deciphering device, including a synchronization mechanism, col. 12 lines 47-50, col. 13 lines 15-40]; determining the time in accordance with a first subinterval of a system time interval (i.e. Fig. 7, time slot → S1 or S2 or S3 or

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S4) preceding a second subinterval of the system time interval by a pre-determined number of subintervals(i.e. Fig. 7, time slot → M5 or M21 or M37....etc.), wherein the second subinterval (i.e. message bits) comprises information bits to be unscrambled [Fig. 4-7, col. 12 lines 60-63, col. 13 lines 21-24]; and determining the unscrambling sequence in accordance with the time (corresponding to a slot) [Fig. 4-7, col. 13 lines 15-40].

Dahlman teaches:

metric of system time [Fig. 10 → one time period includes ten time slots, col. 8 lines 24-28].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Dahlman with Dent, since one would have been motivated to provide the accuracy of channel quality [Dahlman, col. 4 line 67].

As per claim 8, the rejection of claim 6 is incorporated and Dent discloses:

determining the first subinterval of the system time interval preceding the second subinterval of the system time interval by one subinterval [Fig.7, S3 – M37, time clock or block counter controls the operation of the time-of-day or block-count driven ciphering/deciphering device, including a synchronization mechanism, col. 12 lines 47-50].

As per claim 20, it encompasses limitations that are similar to limitations of claim 1.

Thus, it is rejected with the same rationale applied against claim 1 above.

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As per claim 22, the rejection of claim 1 is incorporated and it encompasses limitations that are similar to limitations of claim 3. Thus, it is rejected with the same rationale applied against claim 3 above.

As per claim 25, it encompasses limitations that are similar to limitations of claim 6. Thus, it is rejected with the same rationale applied against claim 6 above.

As per claim 27, the rejection of claim 25 is incorporated and it encompasses limitations that are similar to limitations of claim 8. Thus, it is rejected with the same rationale applied against claim 8 above.

4. Claims 4, 9, 10 and 23, 28, 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent (US Patent No. 5,060,266) in view of Dahlman et al (US Patent No. 6,912,228) and in view of Fisher et al (US Patent No. 5,321,754).

As per claim 4, the rejection of claim 1 is incorporated and Fisher discloses:

performing mapping of the metric on the scrambling sequence [Fig. 1a, col. 4 lines 3-8].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Fisher with Dent and Dahlman, since one would have been motivated to optimize the performance of the transmitter/receiver [Fisher, col.1 line 38].

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As per claim 9, the rejection of claim 6 is incorporated and Fisher discloses:

performing mapping of the metric on the unscrambling sequence [Fig. 1b, col. 6 lines 45-50, 51-68, col. 7 lines 1-23].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Fisher with Dent and Dahlman, since one would have been motivated to optimize the performance of the transmitter/receiver [Fisher, col.1 line 38].

As per claim 10, the rejection of claim 6 is incorporated and Fisher discloses:

performing an exclusive-OR of the information bits with unscrambling sequence [Fig. 3, col. 7 lines 13-15].

As per claim 23, the rejection of claim 20 is incorporated and it encompasses limitations that are similar to limitations of claim 4. Thus, it is rejected with the same rationale applied against claim 4 above.

As per claim 28, the rejection of claim 25 is incorporated and it encompasses limitations that are similar to limitations of claim 9. Thus, it is rejected with the same rationale applied against claim 9 above.

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As per claim 29, the rejection of claim 25 is incorporated and it encompasses limitations that are similar to limitations of claim 10. Thus, it is rejected with the same rationale applied against claim 10 above.

5. Claims 5 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dent (US Patent No. 5,060,266) in view of Dahlman et al (US Patent No. 6,912,228) and in view of Bodin (US Patent No. 6,973,189).

As per claim 5, the rejection of claim 1 is incorporated and Dent teaches performing an adding (using the modulo-2 adder Fig. 4, 203) of the information bits with the scrambling sequence [Fig. 4].

Bodin discloses:

performing an exclusive-OR of the information bits with the scrambling sequence [Fig. 2, col. 3 lines 41-46].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Bodin with Dent and Dahlman, since one would have been motivated to provide the data transmission without needing to make substantial changes to the signaling protocol and/or system equipment [Bodin, col. 2 lines 14-16].

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As per claim 24, the rejection of claim 20 is incorporated and it encompasses limitations that are similar to limitations of claim 5. Thus, it is rejected with the same rationale applied against claim 5 above.

Response to Amendment

6. Applicant has amended claims 1, 6, 20 and 25 which necessitated new ground of rejection. See rejection above.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al (RE 33,189) --- Security system for SSTV encryption

Smeets (US Patent No. 6,813,625) --- Method and device for self-clock controlled pseudo random noise sequence generation

Kage (US Patent No. 4,791,669) – Encryption/decryption system

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav Patel whose telephone number is 571-272-5936. The examiner can normally be reached on 8 am - 4:30 pm (M-F).

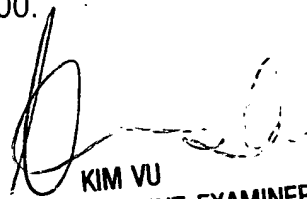
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NBP

11/6/06


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